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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/268,146	03/15/1999	DAVID B. LOMET	MSFT-0038/36	8005

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EXAMINER

ALAM, SHAHID AL

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
09/268,146	LOMET ET AL.	
Examiner	Art Unit	
Shahid Al Alam	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 13-16, 21-26 and 33-36 is/are allowed.
- 6) ☒ Claim(s) 7-12, 17-20, 27-32 and 37-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10102000, 07082002</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1 – 40 are pending in this Application.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7 – 12, 17 – 20, 27 – 32 and 37 – 40 are rejected under 35 U.S.C. 102(b) as being anticipated by ARIES issued by C. Mohan.

With respect to claim 7, Mohan teaches in a database computer system having a cache manager which occasionally flushes objects from a volatile main memory to a non-volatile memory to preserve those objects in the event of a system crash, and wherein a dependency cycle exists between at least two objects such that the two objects should be flushed simultaneously (page 96, paragraph 3), a computer-implemented method comprising the following steps:

detecting a dependency cycle (page 96, paragraph 5);

writing one of the two objects to the stable log to break the dependency cycle (page 133, paragraph 2);

flushing the other of the two objects to the non-volatile memory (page 96, paragraph 5 – page 97, paragraph 1); and

flushing the object that has been written to the stable log to the non-volatile memory (page 96, paragraph 5 – page 97, paragraph 2).

As to claim 8, one of the two objects is an application object and the other of the two objects is a data object (page 96, paragraph 3).

As to claim 9, the writing step writes the data object to the stable log to break the dependency cycle, and the flushing steps flush the application object to the non-volatile memory prior to flushing the data object to the non-volatile memory (page 133, paragraph 2).

As to claim 10, the writing step establishes a flush dependency edge between the two objects (page 96, paragraph 3).

The subject matter of claim 11 and 12 are rejected in the analysis above in claim 7 and these claims are rejected on that basis.

The subject matter of claims 17 – 20, 27 – 32 and 37 – 40 are rejected in the analysis above in claim 7 – 12 and these claims are rejected on that basis.

Allowable Subject Matter

2. Claims 1 – 6, 13 – 16, 21 – 26 and 33 – 36 are allowed over the prior art of record.


The prior art of record does not teach or fairly suggest the steps including steps of executing the first object to perform operation . . . ; posting to the stable log a log record for each operation involving the reading or writing of data . . . and establishing flush order dependencies between the first object and the second object

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Al Alam whose telephone number is (571) 272-4030. The examiner can normally be reached on Monday-Thursday 8:00 A.M.- 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Shahid Al Alam
Primary Examiner
Art Unit 2162

7 March 2005